

Vacuum Drying Oven

Standard Small Size Benchtop Vacuum Drying Oven



ADP200C/210C/300C/310C

Operating temp. range 40~240°C

Operating pressure range 101~0.1kPa

Internal capacity 10L(ADP200C/210C) 27L(ADP300C/310C)

Standard vacuum drying oven with enhanced safety features

Operation and functions

- Easy input of parameters and settings
- Digital PID controller supports fixed temperature, quick auto-stop, auto stop, auto start and program operations
- Self-diagnostic and overheating prevention functions
- Silicon rubber door seal prevents air from leaking
- Independent over heating prevention device for each circuit
- Customizable with N₂ gas inlet and communication ports
- Calibration off-set function
- Easy maintenance

Safety features

- Sensor trouble detection, SSR, short circuit detection, heater disconnecting detection, memory error, over heating and measurement temperature error



Specifications

Model	ADP200C/210C	ADP300C/310C
System	Vacuum drying by decompressed chamber direct heating	
Operating temperature range	40~240°C	
Operating pressure range	101~0.1kPa (760~1 Torr)	
Temp. control accuracy	±1.5°C (at 240°C)	
Max. temp. reaching time	~70min.	~100min.
Interior Material	Stainless steel	
Temp. control method	PID control by microprocessor	
Sensor	K-thermocouple	
Temp. setting method	Digital setting by ▲/▼ keys	
Temp. display method	Measurement temp.: Digital display by green LED Setting temp.: Digital display by red LED	
Timer	1 min. to 99 Hrs. 59 min. and 100 Hrs. to 999 Hrs. and 50 min., Digital display	
Heater	Mica heater 0.68kW	1.05kW
Heat insulating material	Rock wool	
Observation window	Tempered glass (12 mm thickness) and polycarbonate resin plate	
Vacuum gauge	Bourdon tube type, 0~0.1 MPa (Gauge pressure)	
Safety device	Self diagnostic functions (Heater, Sensor, SSR short circuit, automatic overheat prevention function), over current electric leakage breaker, overheating prevention device	
Internal dimensions	W200 x D250 x H200mm	W300 x D300 x H300mm
External dimensions	W400 x D412 x H603mm	W500 x D465 x H705mm
Internal capacity	10L	27L
Shelf loading	~15kg / pcs	
Shelf rest step number	2 steps	3 steps
Shelf rest pitch	65mm	75mm
Vacuum port	O.D.18mm	
Power source	AC115V, 6A / AC220V 3.5A	AC115V, 9.5A / AC220V, 5A
Weight	~30kg	~55kg
Included accessories	Shelf plate (aluminum perforated metal) 2 pcs.	Shelf plate (aluminum perforated metal) 3 pcs.

Optional Items

Description	Product code
Shelf	
ADP200C/210C	297071
ADP300C/310C	297072
Vacuum pump (Rotary vane pump)	
GLD137CC 115V 162L/min, 5.7CFM with Rubber Hose Kit	GLD137CC115DPRKIT
GLD137CC 220V 162L/min, 5.7CFM with Rubber Hose Kit	GLD137CC220DPRKIT
*N ₂ gas introduction device 30L/min.(factory installed)	Contact Customer Service

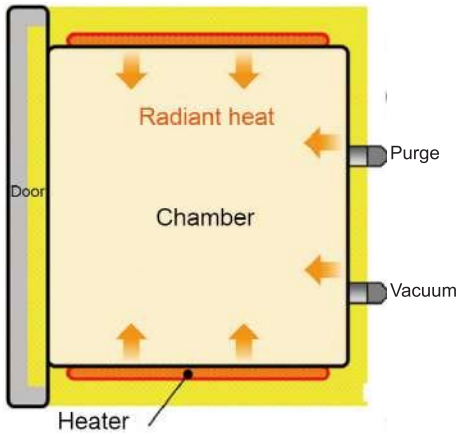
* Please specify when ordering main unit.

Control Panel



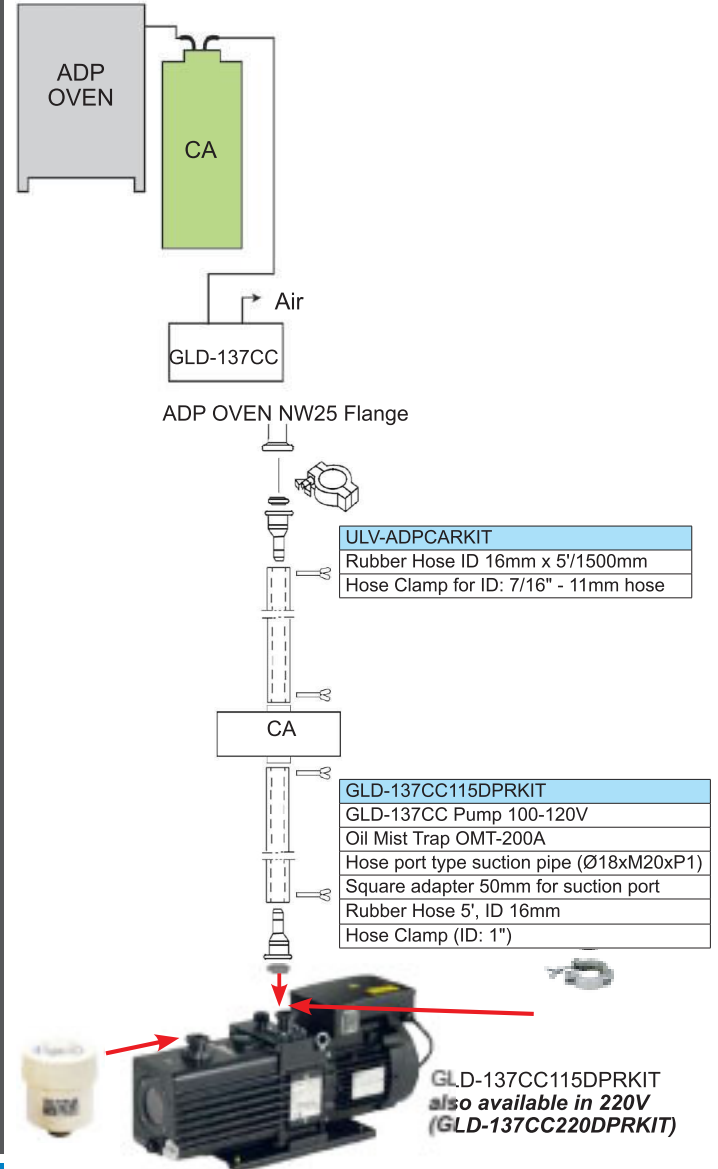
Method

[Side view]



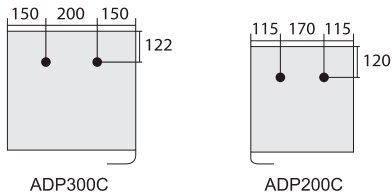
Sample Installation with Cold Trap

Use with CA Series



Dimensions (Unit:mm)

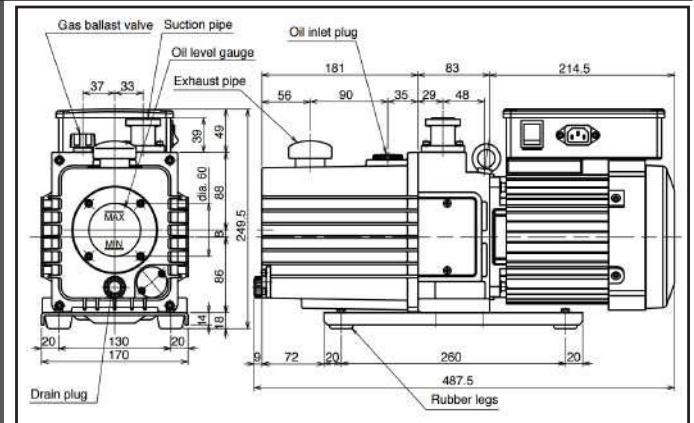
Upper part



⚠ Attention

- Never use in flammable or explosive gas atmosphere
- Never use explosive or flammable material
- Caution: High temperature components

GLD-137CC for ADP Series



Vacuum Drying Oven

Benchtop to Floor Type Vacuum Drying Oven



SDP300/310/400/410/610

Operating temp. range

RT +10~220°C
(SDP300/310/400/410)

RT +15~220°C
(SDP610)

Operating vacuum range

-10 ~ 101 kPa

Capacity

47.2L
(SDP300/310)

127.4L
(SDP400/410)

264L
(SDP610)

Provides exceptional capabilities for fast and gentle drying of heat-sensitive materials

Features

- Digital vacuum gauge shows chamber vacuum level
- Watlow controller that can be programmed to perform multiple ramp and soak profiles
- Doors with positive latch handles with spring-loaded glass to facilitate good vacuum seal
- Tempered glass viewing window allows for safe, continuous monitoring of samples
- Generous usable shelf area
- Achieve impressive vacuum levels
- Built-in overtemperature protection
- Meets TUV safety requirements



47L
SDP300/310



127L
SDP400/410

Specifications

Model	SDP300 SDP310	SDP400 SDP410	SDP610
Operating temperature range	Room temperature +10°C ~220°C		Room temperature +15°C ~220°C
Operating vacuum range	-3.0 ~ -29.9 inHg (-10 ~ 101 kPa)		
Vacuum display range	0.0 ~ -29.9 inHg (5 to -101 kPa)		760 Torr down to 0 mTorr
Controls	EZ-ZONE Watlow		
Access port	KF25		
Temperature uniformity - midrange	± 6.0% of setpoint		
Temperature stability	@ 80°C	± 0.1°C	± 0.2°C
	@ 150°C	± 0.20°C	± 0.25°C
	@ 220°C	± 0.3°C	± 0.3°C
Heat up times (from RT of 20°C for SDP300/400) (from RT of 25°C for SDP610)	@ 80°C	70 mins.	80 mins.
	@ 150°C	120 mins.	130 mins.
	@ 220°C	200 mins.	180 mins.
Cool down times (time to cool down to 50°C)	From 80°C	110 mins.	---
	From 150°C	188 mins.	---
	From 220°C	233 mins.	---
Controller	Digital		
Display resolution	0.1 °C		
Interior material	300 SST		
Exterior material	Painted cold roll steel		
Standard chamber gasket	Silicone		Viton
Internal dimensions	W304 x D508 x H304 mm 12 x 20 x 12 in.	W457 x D610 x H457 mm 18 x 24 x 18 in	W710 x D609 x H609 mm 28 x 24 x 24 in
External dimensions	W528 x D795 x H681 mm 20.8 x 31.3 x 26.8 in	W686 x D895 x H833 mm 27.0 x 35.2 x 32.8 in	W965 x D1189 x H1624 mm 38.1 x 46.8 x 63.9 in
Internal capacity	47.2L	127.4L	264L
Shelf dimensions (WxD)	287 x 483 mm (11.3" x 19")		
Shelf capacity by weight per shelf *1	15.8 kg		34 kg
Maximum total load *2	47.6 kg.		102 kg
Shelf rest step number	3 steps	6 steps	3 steps
Power source 50/60 Hz	AC110 - 120V 10A AC220 - 240 5.5A	AC110 - 120V 13A AC220 - 240V 7A	AC230V 20A (no plug)
Weight	~83kg	~144kg	~223kg
Included accessories	3 shelves (2 tall, 1 short bottom), 1 power cord, 4 leveling feet	3 shelves, 12 shelf clips, 1 power cord, 4 leveling feet	3 shelves, 12 shelf clips, 4 leveling feet, oil drain tray

*1 With weight evenly distributed across the shelf

*2 Exceeding this limit risks damaging chamber liner

SDP300/310 (47L)



Front view with open door



Back view with open door

SDP400/410 (127L)



Front view



Back view

SDP610 (264L)



Front view



Front view with open door

Features a fully programmable Watlow controller and a cool touch surface. A digital vacuum gauge shows chamber vacuum level in measurements of Torr and mTorr. The display range is 760 Torr down to 0 mTorr (Maximum permitted end vacuum is 10 mTorr. Leak rate is 30 mTorr in 30 min).

A secondary independent high limit controller provides overtemperature safety protection.

Equipped with a **VITON** gasket which provides an excellent combination of high temperature performance and chemical resistance.

Optional Items

Description	Applicable Models	Product code
Shelf		
Tall shelf	SDP300/310	SHE-5680588
Short shelf	SDP300/310	SHE-9751342
Shelf	SDP400/410	SHE-5680563
Shelf	SDP610	SHE-5680562
Shelf clip	SDP400/410/610	SHE-1250510
Adjustable leveling feet	All SDP models	SHE-2700506
Door gasket		
Silicone	SDP300/310	SHE-3450707
	SDP400/410	SHE-2450719
Buna-N	SDP300/310	SHE-3450708
	SDP400/410	SHE-3450724
Fluorosilicone	SDP300/310	SHE-3450611
	SDP400/410	SHE-3450612
Viton	SDP300/310	SHE-3450670
	SDP400/410	SHE-3450671
	SDP610	SHE-3450755
Window gasket		
Viton	SDP610	SHE-3450754
Vacuum pump		
GLD137 Rotary Vane Pump with Rubber Hose Kit 115V	SDP300	GLD137CC115DPRKIT
GLD137 Rotary Vane Pump with Rubber Hose Kit 220V	SDP310	GLD137CC220DPRKIT
GLD202 Rotary Vane Pump with Rubber Hose Kit 115V	SDP400	GLD202BB115DPRKIT
GLD202 Rotary Vane Pump with SUS Hose Kit 115V		GLD202BB115DPSKIT
GLD202 Rotary Vane Pump with Rubber Hose Kit 220V	SDP410	GLD202BB220DPRKIT
GLD202 Rotary Vane Pump with SUS Hose Kit 220V	SDP610	GLD202BB220DPSKIT

⚠ Attention

- Never use in flammable or explosive gas atmosphere
- Never use explosive or flammable material
- Caution: High temperature components

Floor Type Vacuum Drying Oven

Large Capacity Vacuum Drying Oven

DP43C/63C



Operating temp. range 40~200°C

Operating pressure range 101~0.1kPa

Internal capacity 91L (DP43C) 216L (DP63C)

Large capacity multi-purpose vacuum oven



91L
DP43C



216L
DP63C

Operation and functions

- Interactive key input of the control panel for easy operation
- Equipped with high precision functions such as fixed temperature, quick auto stop, auto stop, auto start and program operations for enhanced performance
- Vacuum reaching time significantly reduced by improvement of the exhaust system, resulting in more efficient operation
- Vacuum pump can be stored in the bottom cabinet, which is suitable for space limited laboratories
- Easy removal of piping and maintenance of vacuum pump
- Calibration off-set function

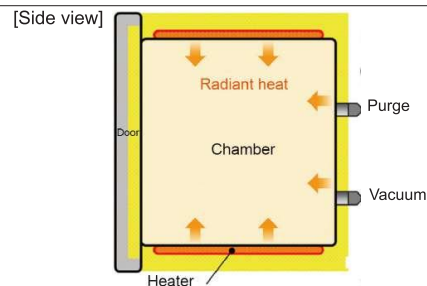
Safety features

- Enhanced safety features: sensor trouble detection, SSR short circuit detection, heater disconnection detector(sensor), memory error, internal communication error, overheating and measurement temperature error
- Large observation window with protective cover for increased safety

Specifications

Model	DP43C	DP63C
System	Vacuum drying by decompressed chamber direct heating	
Operating temp. range	40°C to 200°C	
Operating pressure range	101 to 0.1 kPa (760 to 1 Torr)	
Temp. control accuracy	±1.0°C (at 200°C)	
Max. temp. reaching time	~80 min.	~120 min.
Interior material	Stainless steel	
Exterior material	Cold rolled steel plate with baked-on melamine resin finish	
Door	Single swing door	
Heat insulating material	Glass wool	
Heater	Mica heater, 2.25 kW	Mica heater, 3.15 kW
Vacuum gauge	Bourdon tube type, 0 ~ -0.1 MPa (Gauge pressure)	
Observation window	Tempered glass and polycarbonate resin plate	
Temp. control method	PID control by microprocessor	
Temp. setting method	Digital setting with ▲/▼ keys	
Temp. display method	Green LED digital display	
Timer	1 min. to 99 Hrs. 59 min. and 100 Hrs. to 999 Hrs. and 50 min.	
Min. division	1 min. or 10 mins.	
Operation function	Fixed temperature operation, Quick auto stop, Auto-start operation, Auto-stop operation, Program operation (16 segments)	
Additional functions	Calendar timer (max. 24 Hrs.), Integration time (max. 49999 Hrs.), Time display	
Heater circuit control	Triac zero-cross control	
Temp. sensor	K-thermocouple (double sensor)	
Safety device	Self diagnostic functions (Sensor, Heater, Triac, Automatic overheating prevention), Independent overheating prevention, Key lock function, Electric leakage breaker	
Internal dimensions (WxDxH)	450×450×450 mm	600×600×600 mm
External dimensions (WxDxH)	670×669×1500 mm	820×819×1650 mm
Internal capacity	91L	216L
Shelf Support Qty. / Pitch	4 steps / 105mm	4 steps / 140mm
Exhaust port / Purge port	NW25 flange / Rc 1/4 (18mm O.D.)	
Power source	220V, single phase, 11A	220V, single phase, 15A
Weight	~190kg	~290kg
Shelf	2 perforated stainless steel shelves	

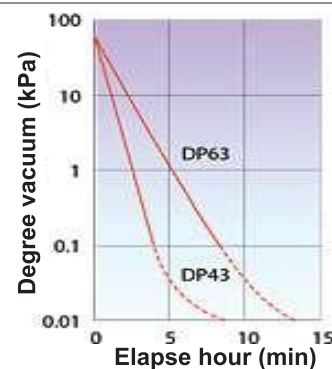
Method



Control Panel



Pressure Falling Curve

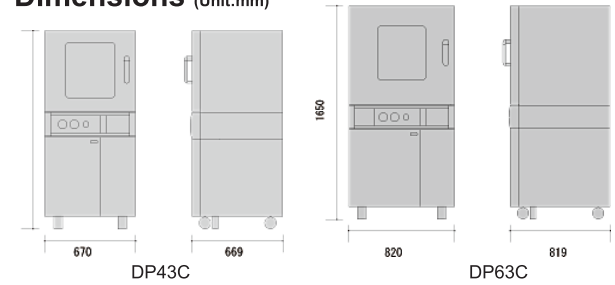


Optional Items

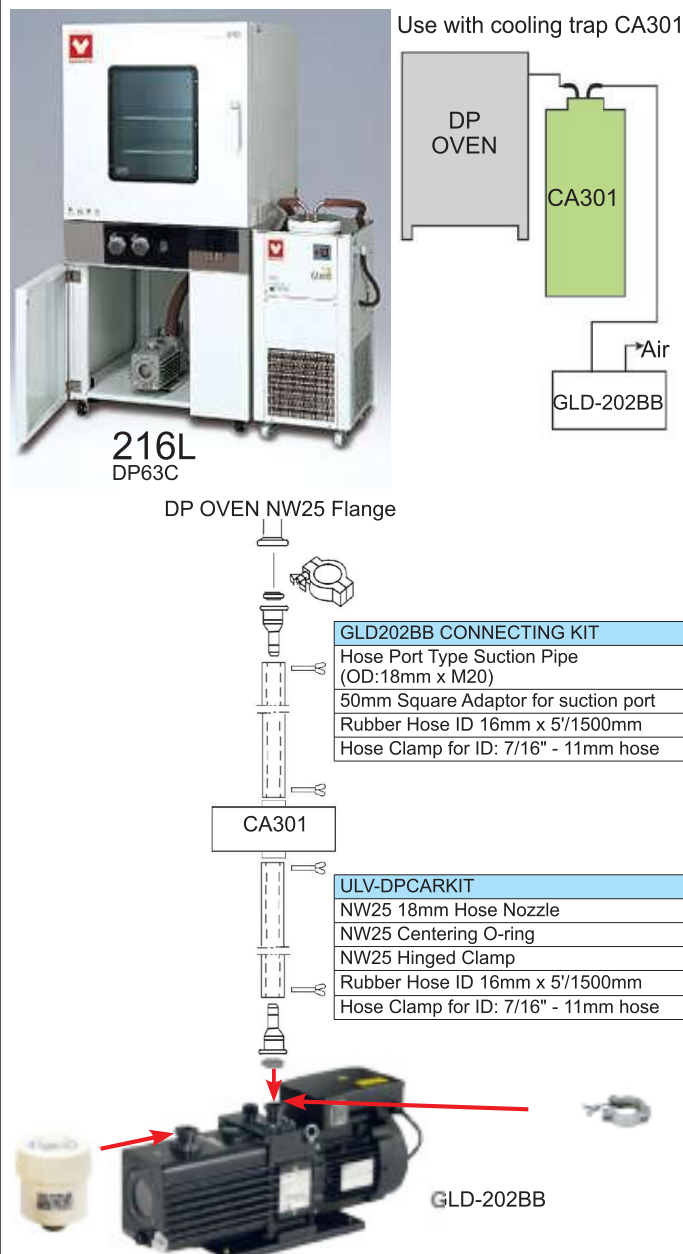
Description	Product Code
DP43C shelf	212192
DP63C shelf	212193
Temperature output terminal	281609
*N ₂ Gas Introduction Device 30L/min. (Factory Installed)	281151
*Vacuum Pump Switch (For DP43C/63C) (Factory Installed)	281152
Oil-sealed rotary vacuum pump	
GLD202BB with rubber hose kit 115V	GLD202BB115DPRKIT
GLD202BB with SUS hose kit 115V	GLD202BB115DPSKIT
GLD202BB with rubber hose kit 220V	GLD202BB220DPRKIT
GLD202BB with SUS hose kit 220V	GLD202BB220DPSKIT

* Please specify when ordering main unit.

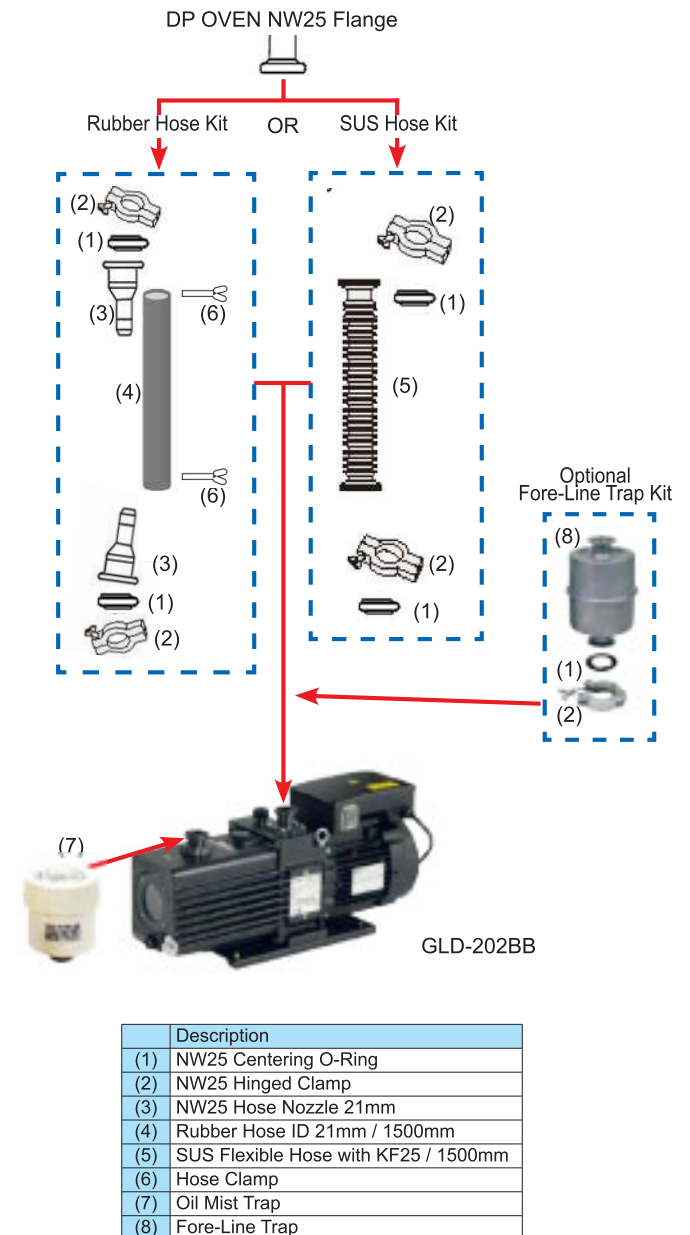
Dimensions (Unit:mm)



Sample Installation with CA301



Rubber Hose or Stainless Steel Hose Connection for Vacuum Pump



⚠ Attention

- Never use in flammable or explosive gas atmosphere
- Never use explosive or flammable material
- Caution: High temperature components

Floor Type Vacuum Drying Oven

Large capacity Vacuum Drying Oven



DP83C/104C

Operating temp. range 40~200°C

Operating pressure range 101~0.1kPa

Internal capacity 512L (DP83C) 1000L (DP104C)

Large scale vacuum drying oven designed for treatment of large-sized parts



Operation and function

- Vacuum pump can be installed inside the oven
- Quick connect / disconnect of vacuum pipes for easy vacuum pump maintenance
- Improved working efficiency as exhaust system is improved to significantly shorten the time to reach vacuum
- Use specialized function menu key and up/down key to set. With program operation function, use submenu key to operate overheat protector, deviation correction, etc.

Safety features

- Self-diagnosis circuit (abnormal temperature sensing, heater disconnection, auto overheat prevention, SSR short circuit), overheat protector, ELB to prevent overcurrent, key lock, etc.
- For safety, resin protection panel is installed at the observation window

Specifications

Model	DP83C	DP104C
Method	Decompressed chamber direct heating	
Operating temp. range	40~200°C	
Operating vacuum range	101~0.1kPa (760~1Torr)	
Temp. adjustment accuracy	±1.0°C (at 200°C)	
Interior material	Stainless steel plate	
Exterior material	Cold rolled steel plate with chemical proofing coating	
Insulating material	Glass fiber	
Heater power	6.5kW	14.4kW
Observation window	Toughened glass + resin protection panel	
Vacuum gauge	Pointer type, -100~0kPa	
Vacuum pump installation room	Yes	
Temp. control	3 segments PID	
Temp. setting	Use specialized function menu key and ▲/▼ key to set	
Temp. display	Measured temp. display: green 4-digit LED digital display Setting temp. display: red 4-digit LED digital display	
Timer	1min-99 hr 59 min and 100 hr - 999 hr 50 min (with time wait function)	
Operation function	Fixed temp. auto start, auto stop, program operation	
Program mode	Program operation 3 segments 30 steps (30 steps×1, 15 steps×2, 10 steps×3)	
Additional function	Deviation correction, key lock, power outage compensation	
Heater circuit control	SSR driving	
Sensor	K thermocouple (temp. controller and overheat protector)	
Safety device	Self-diagnostic circuit (abnormal temp. sensing, heater disconnection, auto overheat prevention, SSR short circuit), overheat protector, EBL to prevent overcurrent, key lock, etc.	
Internal dimensions (W×D×H)	800×800×800 mm	1000×1000×1000 mm
External dimensions (W×D×H)	1020×1020×1850 mm	1300×1280×2110 mm
Internal capacity	512L	1000L
Air exhaust port	NW40 flange	
Air suction port	Rc 3/8	
Power source (50/60Hz) rated current	AC220V 31.5A (no plug, round terminal)	3 phase AC480V 18A (no plug, round terminal)
Weight	~450kg	~1000kg
Included accessories	Stainless steel punching plates, 2 pcs.	Stainless steel punching plates, 4 pcs.
Optional accessories	Shelf plate, vacuum pump, N ₂ introduction device, recorder, alarm indicator lamp (stand-by/running/malfunction), temp. output terminal (4~20mA), Output terminal for external alarm, time up output terminal	

Optional Items

Product Code	Description
Q110204006	DP83C shelf
Q110204007	DP103C shelf

Recommended pump:

Product Code	Description
CR60BS200DPRKIT	Dry pump 200~240V with rubber hose and power cable kit

